Product Guide for Smoke & Heat Alarms

Ahead on Quality
Ahead on Performance
Ahead on Features

When Lives are at Risk
it Pays to Fit the Best

Stockist
Smoke & Heat Alarm Installation Standards & Regulations ... how does it affect me?

What does the British Standard BS 5839: Part 6: 2004 Recommend?

This is the definitive code of practice to which Architects, Building Professionals, Enforcing Authorities, Landlords and Installers should refer for recommendations on the design, installation and use of smoke and heat alarms in the majority of domestic dwellings. Landlords in both the public and private sector are considered to have a duty of care to fit compliant smoke and heat alarms.

New Build Properties & Materially Altered Dwellings

One to three storeys - Grade D, LD2
- Mains alarms with battery back-up
- Optical smoke alarms in circulation spaces - hallways & landings e.g. Ei144 or Ei166
- Heat alarm in the kitchen e.g. Ei144 or Ei164 with or without RadioLINK

Two and three storey - Grade D, LD3
- Mains alarms with battery back-up
- Optical alarms in circulation spaces - hallways & landings e.g. Ei146 or Ei166 with or without RadioLINK

Existing Tenanted Properties

Two and three storey - Grade D, LD3
- Mains alarms with battery back-up
- Optical alarms in circulation spaces - hallways & landings e.g. Ei146 or Ei166 with or without RadioLINK

What do Building Regulations Demand in New Build and Materially Altered Dwellings?

Architects, builders and installers must comply with Building Regulations and install mains powered smoke alarms in new and materially altered dwellings.

England & Wales

Building Regulations Approved Document B (Fire Safety) requirements are currently Grade E, LD3.

A consultation document dated July 2005 proposes the following new requirements which, if implemented, are expected to come into force in early 2006.

Grade D, LD2
- Mains alarms with battery back-up wired to a lighting circuit or a dedicated circuit
- Smoke alarms are required in the circulation spaces such as hallways and landings. In general optical alarms are recommended e.g. Ei146, Ei166
- Heat alarm to be installed in the kitchen where there is no door separating the kitchen from the circulation space, e.g. EI44, EI64
- A smoke alarm should also be fitted in the main (largest) bedroom to meet audibility requirements
- Building extensions and room conversions, above ground floor level, require a Grade D, LD2 system to be installed in the property
- Smoke and heat alarms should be interconnected
- Mains powered smoke and heat alarms may be interconnected using radio-links

Scotland

Building Standards Technical Handbook No 2 (Fire) requirements are currently:

Grade D, LD3
- Mains smoke alarms with battery back-up
- Smoke alarms are required in the circulation spaces, hallways & landings
- Smoke alarms should be interconnected
- Alarms may be interconnected using radio-links

Northern Ireland

Building Regulations (Northern Ireland) Technical Booklet E (Fire Safety) requirements were amended in June 2005 to:

Grade D, LD2
- Mains Smoke alarms with a battery back-up
- Smoke alarms are required in the circulation spaces, hallways & landings
- A smoke alarm is required in the ‘principal habitable room’ e.g. living room
- A heat alarm is required in every kitchen
- Loft conversions require all the above to be installed
- Smoke and heat alarms should be interconnected
- Alarms may be interconnected using radio-links

Fire detection and fire alarm systems in buildings

Fire detection and fire alarm systems play a vital role in reducing the risk of fire and its consequences in buildings. Early detection of a fire can lead to prompt action by occupants, enabling them to escape and reducing the risk of fire spreading and causing property damage. Fire detection systems also play a vital role in protecting property and ensuring business continuity. Ei is the UK’s leading manufacturer of fire detection and fire alarm systems.
The Importance of Type Selection, Positioning, Wiring & Interconnection of Smoke & Heat Alarms

ALARM SENSOR TYPES

Optical Alarms

where should they be used?

Optical sensors are more responsive to smouldering fire-producing large particle smoke typical of fires involving furniture and bedding. They are more immune to invisible smoke produced by ‘burning the toast’ and similar cooking fumes. This makes them ideal for siting in hallways close to kitchens where false alarms from ionisation alarms may be a particular problem. The BS 5839: Pt.6: 2004 Standard recommends the use of optical alarms in circulation spaces of a dwelling, such as hallways and landings. Optical alarms are prone to false alarm if exposed to steam and should not be located too close to poorly ventilated bathrooms or shower rooms.

Ionisation Alarms

where should they be used?

Ionisation type sensors are particularly sensitive to the almost invisible smoke produced by fast framing fires. This makes them more liable to false alarm due to cooking fumes if sited in a hallway close to a kitchen. Ionisation alarms are less vulnerable to false alarms caused by dense tobacco smoke, excessive dust and insect ingress. The BS 5839: Pt.6: 2004 Standard recommends that ionisation alarms should not be used in hallways and landings, where there is a risk of false alarms caused by cooking fumes.

Heat Alarms

where should they be used?

Heat alarms are less likely to cause false alarm problems as they are not responsive to any type of smoke or fumes, only heat. Because of the potential for a slower response than smoke alarms, they should only be used in a fire alarm system that also includes smoke alarms, and all of the alarms must be interconnected. The BS 5839: Pt.6: 2004 recommends that heat alarms should be used in kitchens. It goes on to suggest that they may also have a role to play in the main living room but they should not be installed in circulation spaces or areas where fast response to fire is required.

Optical or ionisation smoke alarm as best suited for the particular circumstances

Optical smoke alarm

Smoke or heat alarm as best suited for the particular circumstances

Heat alarm

For additional guidance please use the Customer Service Helpline 0870 758 4000

SITING DIAGRAMS

For Houses in Multiple Occupation (HMOs) see page 15

Which Alarms to Fit Where

Average two storey house

Single storey dwelling

Do not install smoke or heat alarms in bathrooms, shower rooms or toilets

Use standard BS 6004 PVC cable typically 1.5mm² 6243Y three core and earth.

Important

Interconnection is vital to ensure the alarm is heard throughout the property by all occupants.

Interconnection is not required if the fire alarm system is only intended for the immediate vicinity of the premises and is not connected to other properties.

The alarms must not be connected to the mains electrical supply or to any other device or equipment in the property by all occupants.

The alarms must not be connected to the mains electrical supply or to any other device or equipment in the property by all occupants.
Innovative Design & Quality Features

A precision charging circuit ensures peak cell efficiency at all times. Additionally soldered contacts prevent failures due to corrosion and arcing associated with more commonly used pressure contacts.

At 85dB(A) at 3 metres our alarms are loud. Unique encased horn assembly has the piezo disc securely held with silicone mastic to prevent creepage and premature horn failure. Additionally soldered contacts prevent failures due to corrosion and arcing associated with more commonly used pressure contacts.

Ultra high performance vanadium pentoxide lithium rechargeable cells are used on the 160 Series, 150 Series and RadioLINK bases. These cells offer the best back-up possible and are designed to outlast the alarms.

Ultra high performance vanadium pentoxide lithium rechargeable cells. Protection from external contamination is vital to maintain the fire detecting sensitivity of the product and to minimise false alarms. The mesh insect screen reduces false alarms caused by insect contamination and fibres, whilst allowing free access of smoke to the sensor chamber. A dust cover is also provided for protection on site and prior to occupancy.

Cells provide up to six months back-up and are designed to outlast the alarms. These cells offer the best back-up possible 160 Series, 150 Series and RadioLINK bases.

THE FASTEST SIMPLEST INSTALLATION POSSIBLE...

Fitting an Easi-fit mains powered alarm really is this simple:

1. Screw the mounting plate supplied with the alarm to the ceiling during first fix. No separate enclosure is required.
2. Wire up terminals on the mounting plate and clip on the protective cover.
3. Slide the alarm into place. There’s no need to wire up a separate lead and connector.

REMOVAL

The alarm is removed by releasing the tamper-resistant clip with a screwdriver and sliding it off. The protective cover ensures that the mains cables are never exposed.

All smoke alarms comply with: BS 5446: Pt 1: 2003
All heat alarms comply with: BS 5446: Pt 2: 2003

BS 5446: Pt.1:2000
BS 5446: Pt.2:2003
BS 5446: Pt.3: 2003
EMC Conformance
BS & Building Reg. Grade D Compliance
BS & Building Reg. Grade E Compliance
BS Kitemarked
Certificate Identification
User Instructions
Installation Instructions
Comprehensive Installation Instructions
User Guide
Distributor Board Label Supplied
Multi Purpose Fixings Supplied
Multi Purpose Fixings Included
Distribution Board Label Supplied
Typical Footprint Dimensions (mm)
Interconnecting mains powered smoke alarms is essential to provide the earliest possible warning of a fire. Fire statistics show that the quicker occupants are alerted to a fire, the less risk of death or injury there is. Furthermore, property damage is also reduced.

But hard wired interconnection is expensive, time consuming and disruptive. A hard wired system is also difficult and expensive to reconfigure when circumstances (or standards) change.

RadioLINK is the solution.

With RadioLINK, mains powered smoke alarms are interconnected by wireless signals rather than cabling. It’s so much simpler, more convenient – and easier to change or extend as and when required.

The use of radio interconnection in Grade D alarm systems means that it is now much easier to comply with the extended alarm coverage recommended in BS 5839 Pt.6: 2004. With no interconnect wiring required, the contractor and specifier can agree fixed costs – allowing a quicker, simpler and more cost effective solution to smoke and heat alarm installation.

Fire Risk Assessments - A Major Issue for Landlords in the Private & Public Sector

The new BS 5839 Pt.6: 2004 recommends that a fire risk assessment is conducted in properties. The reality is, that most landlords do not have the resources to undertake this hugely time-consuming and expensive operation. In view of this, when retrofitting smoke alarms into existing properties, serious consideration should be given to the suggestion that – in the absence of a fire risk assessment – it may be ‘Best Practice’ to specify a Grade D Category L52 system as recommended for new build properties:

- Hallways and landings - Optical smoke alarms
- Kitchens - Heat alarms
- Living Room - Smoke or Heat alarms depending on the circumstances

The Easiest Installation in Conversion Properties, Extensions & Loft Accommodation

If wiring to areas outside of the conversion or ‘works’ area is required in order to install the additional alarms cited by Building Regulations, RadioLINK can provide an easier way of achieving an interconnected alarm system.

RadioLINK in Apartments & HMOs

In circumstances where an expensive control panel system is not required, RadioLINK provides the cornerstone of a truly innovative, powerful and cost-effective communal system when used in conjunction with RadioLINK System Control Devices. (See pages 14 and 15 for more details)
The 160 Series, Easi-fit mains powered smoke and heat alarms are our highest specification range, especially so when coupled to the RadioLINK system. Designed for the specifier, installer and end user demanding the very highest standards of safety, performance and reliability you'd expect from Europe's leading manufacturer of mains powered fire detection products. Almost all practical duty of care provisions are catered for. With no risk of casual back-up cell removal, the power supply is virtually guaranteed against any external threat to the energy supply. Risks of false alarms are minimised and installation costs are lower due to ease of installation and the all round quality of the outstanding 160 Series.

**WHY RECHARGEABLE VANDIUM PENTOXIDE LITHIUM CELLS?**

The 10 year+ technology used in the 160 Series provides the most effective and reliable back-up power available. Maintenance requirements are negligible. The cells used are the only rechargeable cells with a realistic ten year life expectancy confirmed by manufacturer Panasonic. Constantly ‘topped up’ by the mains, they out-perform lithium primary batteries, capacitors or rechargeable cells currently in use in other smoke alarms.

- Environmentally friendly - no special disposal requirements
- A precision charging circuit ensures peak efficiency at all times
- 6 month back-up even without mains power
- Cells supplied fully charged providing 6 months initial standby capacity before mains powering
- Proven 10 year+ life expectancy
- Cells are soldered for reliable long term connection
- Terminals are laser welded for reliability
- Wide temperature range -20ºC to +60 ºC
- No battery replacement requirement

**160 SERIES COMMON FEATURES & BENEFITS**

- Advanced suppression and calibration technology: For reduced nuisance alarms and correct smoke sensitivity
- 10 year+ lithium cell back-up: Reliable energy back-up for the life of the alarm
- Hush button on all products: Control of false alarms
- Separate mains and warning LEDs: Easy identification of alarm status
- Precision charging circuit: Ensures peak cell performance
- Low cell power warning: Identifies loss of mains charging or cell failure
- Interconnects with other Ei mains smoke and heat alarms: Offers a complete residential alarm system
- RadioLINK & Modifire system compatible: The perfect solution to meeting BS 5839: Pt.6: 2004
- ‘Easi-fit’ mounting plate system: Reduces installation time and effort
- Large easily identifiable wiring connections: Reduces risk of wiring errors
- Multiple cable entries: Provides wiring route options for the installer
- Mini trunking removable access door: Neat surface wiring option
- Surface mount kit available: For uneven ceilings and additional wiring options
- 5 amp relay mounting kit available: 5 amp relay in a base for interfacing with remote devices
- Automatic circuitry test every 40 seconds: Confirms the alarm is always functional
- Multi-purpose fixings: For use on plasterboard, concrete or wood surfaces
- Comprehensive 5 year guarantee: Includes rechargeable cells

**Ei166 Optical With Hush**
- More responsive to slow smouldering fires
- Unique and proven long life ionisation smoke chamber
- RadioLINK & Modifire system compatible: The perfect solution to meeting BS 5839: Pt.6: 2004

**Ei161 Ionisation With Hush**
- Responds quickly to fast flaming fires
- Unique and proven long life ionisation smoke chamber
- RadioLINK & Modifire system compatible: The perfect solution to meeting BS 5839: Pt.6: 2004

**Ei164 Heat With Hush**
- Ideal for protecting kitchens and garages and other areas prone to false alarms
- Fixed temperature fast response thermistor sensor range 54° - 62°C
- BS 5446: Pt 2: 2003 Class A1

**Ei164R Surface Mount Kit with 5 amp Relay**
- Surface Mount kit with 5 amp Relay
- Surface Mount kit with 5 amp Relay & 10+ Rechargeable Lithium Cells

**Surface Mount Kits & Relays**

For 160 Series alarms see page 17

**COLOUR CODED PACKAGING FOR EASY RECOGNITION**

**Ei161R Ionisation With Hush, Mounting Plate & Surface Mount Kit**
- Ei161R Ionisation with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411

**Ei164R Optical With Hush, Mounting Plate & Surface Mount Kit**
- Ei164R Optical with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411

**Ei164R Heat With Hush, Mounting Plate & Surface Mount Kit**
- Ei164R Heat with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411

**Ei164R Optical With Hush & Mounting Plate**
- Ei164R Optical with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411

**Ei164R Heat With Hush & Mounting Plate**
- Ei164R Heat with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411

**Ei166R Optical With Hush & Mounting Plate**
- Ei166R Optical with Hush, Mounting Plate & Surface Mount Kit for use with Modifire System, Ei152 & MCP400, RadioLINK Ei411
More responsive to slow smouldering fires

5 year guarantee

Proven 10 year+ rechargeable lithium cell back-up

Fine mesh insect resistant screen

Unique and proven long life ionisation smoke chamber

5 year guarantee includes rechargeable cells

Protective dust cover supplied

Separate mains and warning LEDs

Low power cell warning in the event of mains or cell failure

Precision charging circuit ensures peak cell performance

Easy to use Test button

Proven 10 year+ rechargeable lithium cell back-up

Easy to use Test and Hush buttons

BS 5446: Pt.2: 2003 Class A2

Ideal for protecting kitchens and garages and other areas subject to false alarms

Fixed temperature fast response thermistor sensor range 54° - 62°C

Alkaline battery supplied already connected to reduce installation errors (does not draw power until alarm is fitted to the mounting plate)

Hush button for false alarm control

Interconnects with other Ei mains powered smoke and heat alarms

Separate mains and warning LEDs

Time and money saving Easi-fit design

Precision charging circuit ensures peak cell performance

Separate mains and warning LEDs

Hush button for false alarm control

Interconnects with other Ei mains powered smoke and heat alarms

Separate mains and warning LEDs

Time and money saving Easi-fit design

Protective dust cover supplied

5 year guarantee

BS 5446: Pt.2: 2003 Class A1
The Modifire System
For HMOs, Apartments & Larger Installations

MODIFIRE SELECTION GUIDE

System Options Modifire RadioLINK Modifire Wired Modifire Hand wired Notes

Wire free interconnection Ei168 N/A Use an Ei168base with every alarm in the system

Manual Call Point Ei407* MC400* Use Ei161R, Ei164R or Ei166R alarm to operate the MC400

Alarm Locate Switch Ei171* Ei159 *Completely wire free

Wire free Remote Test, Locate & Hush Switch Ei411 N/A Use only Ei161R, Ei164R or Ei166R alarms for hush feature

Hard Wired Remote Test & Hush Switch N/A Ei162 For use with Ei161R, Ei164R, Ei166R alarms only

Relay Ei426* Ei280R Ei280RB* *Operates even in mains failure

Xenon Beacon SABB3 SABB30 *SABB30 SABBV4 *SABBV4 Requires relay

Magnetic Door Holder MDC230 MDC230 Requires relay

Remote Sounder - External YC3 YC3 Requires relay

Remote Sounder - Internal Ei167 Ei167 Uses as smoke/heat alarms in the system

MODIFIRE IN APARTMENTS AND OTHER MULTI-STOREY PROPERTIES

The main problem with a fire alarm system that covers the whole property is false alarms causing inconvenience to the occupants and unnecessary call outs by the Fire Brigade. The common response by occupants is to disable the system.

A Modifire system is flexible enough to suit the individual requirements of a property and can minimise the false alarm problems.

The diagram below shows a block of apartments with each apartment having its own dedicated system and a separate system covering the escape route. Should a false alarm occur in any of the apartments, it will not affect any of the other apartments. If a fire occurs in any of the apartments, the heat alarm inside the apartment (connected to the escape route system, but not the system in the apartments) will operate the system in the ‘escape route’ system plus the heat alarm in each of the other apartments to give the vital early warning.

Local Authority and/or Local Fire Authority approval must be sought for Modifire HMO Systems.

Example of fire alarm system for multi-storey apartments & HMOs

System A

Apartment 1

Escape route

Apartment 6

Apartment 5

Apartment 3

Escape route

Apartment 4

Apartment 2

Alarms in apartments

- Stand alone mains powered smoke alarm system not connected to other apartments, or escape route

Escape route

- Smoke alarms all interconnected

- Heat alarm in hallway of each apartment - interconnected with smoke alarms in escape route only

- Manual Call Point connected to system in escape route

System B

Apartment 1

Escape route

Apartment 2

Apartment 3

Apartment 4

Apartment 6

Apartment 5

Alarms in apartments

- Stand alone mains powered smoke alarm system not connected to other apartments, or escape route

Escape route

- Smoke alarms all interconnected

- Heat alarm in hallway of each apartment - interconnected with smoke alarms in escape route only

- Manual Call Point connected to system in escape route

- Smoke alarm system covering escape route

- Heat alarm in hallway

- Manual Call Point connected to system in escape route

- Smoke alarms all interconnected

- Heat alarm in hallway of each apartment - interconnected with smoke alarms in escape route only

- Manual Call Point connected to system in escape route

MODIFIRE HARD WIRED SYSTEM

At the heart of the system is the 160 series 11 models (Ei161R, Ei164R, Ei166R). It is then a simple case of installing the control and/or signalling devices required for the specific property. The adjacent Modifire Selection Guide details the products required to achieve the level of control desired.

Modifire RadioLINK with a Wireless Manual Call Point & Remote Control Switch

Ei168 RadioLINK base with mains smoke alarm

System can be hard wired if required

Wireless Manual Call Point

Wireless Remote Control Switch
Mains powered control panel with
Operates on a wide range of voltages 10VDC - 30VDC
Surface Mounting Kit for use on uneven ceilings or
Interconnect feature
Designed to be sited under a smoke/heat alarm (Ei158R, Ei128R,
Suitable for use in BS 5839: Pt.6: 2004 Grade C applications with
Supplied with Alkaline battery back-up
Integral relay
Pager output facility
Smoke alarms Kitemarked to BS 5446: Pt.1: 2000
Surface Mount Kit for easier connection of complicated
Remote relay module for use with RadioLINK system
Smoke alarms Kitemarked
5 Amp coil with volt-free output contacts
Ionisation, optical and heat sensor types available
High intensity integral strobe light
Auxiliary socket for connection of additional optional strobe lights.
Vibrating pad for placing under a pillow or mattress
Supplied with plug-in or hard wired option
Capability for interconnection of up to 12 alarms
Test button on control panel for testing the system
Connections are monitored to check integrity of system
Alarm clock input facility
Remote trigger option
Pager output facility
Compatible with RadioLINK system (E1169/E1176RF)
Systems available for mains or LV operated smoke alarms

Systems Available
Ei169 - Supplied with a mounting pattress for E150 Series
smoke or heat alarms. Smoke/Heat alarm not supplied.
Ei169V160 - Supplied with a mounting pattress for E160 Series
smoke or heat alarms. Smoke/Heat alarm not supplied.
Ei169RF - Comprises control box with a RadioLINK transceiver,
integral strobe, vibrating pad and cable for connections, ideal
for use with smoke and heat alarms using an E168 RadioLINK
base. Other RadioLINK control devices can be used with this
model (see page 9 for more information). RadioLINK base and
smoke/heat alarm not supplied.
Ei175 - Supplied with low voltage ionisation smoke alarm.
Ei176 - Supplied with low voltage optical smoke alarm.
Ei176RF - Comprises control box with a RadioLINK transceiver,
integral strobe, vibrating pad and cable for connections. Supplied
with E1305RF RadioLINK optical smoke alarm.

People with hearing difficulties require a different approach to fire
protection, as a conventional alarm sounder will not be sufficient for
their needs. Aico’s range of alarms for the deaf and
hearing impaired are the only units currently
available from an experienced smoke alarm
manufacturer. They are also available with
RadioLINK for ease of installation.

System Features

- Mains powered control panel with rechargeable battery back-up
- High intensity integral strobe light
- Auxiliary socket for connection of additional optional strobe lights.
- Vibrating pad for placing under a pillow or mattress
- Supplied with plug-in or hard wired option
- Capability for interconnection of up to 12 alarms
- Test button on control panel for testing the system
- Connections are monitored to check integrity of system
- Alarm clock input facility
- Remote trigger option
- Pager output facility
- Compatible with RadioLINK system (E1169/E1176RF)
- Systems available for mains or LV operated smoke alarms

Surface Mount Kits & Relays

Surface Mount Kits enable easier installation of the alarms. Relays
provide the option of signalling to almost any other device. Relays
can be used to signal to:
- Warden Call Systems
- Sounders
- Smoke Vents
- Strobes
- Door Closers
- Other Fire Alarm Systems

Relay Features

- 5 Amp coil with volt-free output contacts
- Contacts rated up to 2A/240V AC
- Selectable for pulse or continuous operation
- Mains operated - all models
- Rechargeable cell back-up supply (Ei128BU & Ei148R), interfaces
  with other mains back-up protected systems, such as Warden Call
- Designed to be sited under a smoke/heat alarm (Ei180R, Ei128R,
  Ei128BU)
- Optional cover available for Ei128R & Ei128BU models to enable
  relay to be sited remotely, rather than under a smoke alarm

140 and 160 Series options

Ei127 - Surface Mounting Kit for use on uneven ceilings or
where complicated wiring is used.
Ei128R - As Ei127 with integral relay.
Ei128BU - As Ei128R with 10yr+ rechargeable cell back-up supply.
Ei128COV - Cover to enable Ei128R/Ei128RBU to be remotely sited.

150 Series options

Ei157 - Surface Mount Kit for easier connection of complicated
wiring and removes the need for a dry lining box.
E157R - As above with 8 way terminal block (for use with
Ei151TLR and Ei156TLR alarms).
E158R - As Ei157 with integral relay.

Low Voltage Smoke & Heat Alarms

In properties where there is a requirement to connect smoke and
heat alarms to a low voltage security system, or Warden Call
System, the Ei180 Series alarms can provide the ideal solution.
- Ionisation, optical and heat sensor types available
- Integral Test and Hush button
- Unique Easy-fit installation to save time and money
- Operates on a wide range of voltages 10VDC - 30VDC
- Supplied with Alkaline battery back-up
- Integral relay offering selectable continuous or pulse operation
- Smoke alarms Kitemarked to BS 5446: Pt.1: 2000
- Heat alarms Kitemarked to BS 5446: Pt.2: 2003 Class A2
- Suitable for use in BS 5839: Pt.6: 2004 Grade C applications with
  appropriate control equipment

In applications where budget is the key, the range of 12VDC smoke
and heat alarms available from Aico are ideal for
connection to domestic security systems.
- Ionisation, optical and heat sensor types available
- Integral relay
- Interconnect feature
- Smoke alarms Kitemarked to BS 5446: Pt.2: 2003 Class A2
- Suitable for use in BS 5839: Pt.6: 2004 Grade C applications with
  appropriate control equipment

People with hearing difficulties require a different approach to fire
protection, as a conventional alarm sounder will not be sufficient for
their needs. Aico’s range of alarms for the deaf and
hearing impaired are the only units currently
available from an experienced smoke alarm
manufacturer. They are also available with
RadioLINK for ease of installation.

System Features

- Mains powered control panel with rechargeable battery back-up
- High intensity integral strobe light
- Auxiliary socket for connection of additional optional strobe lights.
- Vibrating pad for placing under a pillow or mattress
- Supplied with plug-in or hard wired option
- Capability for interconnection of up to 12 alarms
- Test button on control panel for testing the system
- Connections are monitored to check integrity of system
- Alarm clock input facility
- Remote trigger option
- Pager output facility
- Compatible with RadioLINK system (E1169/E1176RF)
- Systems available for mains or LV operated smoke alarms

Surface Mount Kits & Relays

Surface Mount Kits enable easier installation of the alarms. Relays
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can be used to signal to:
- Warden Call Systems
- Sounders
- Smoke Vents
- Strobes
- Door Closers
- Other Fire Alarm Systems

Relay Features

- 5 Amp coil with volt-free output contacts
- Contacts rated up to 2A/240V AC
- Selectable for pulse or continuous operation
- Mains operated - all models
- Rechargeable cell back-up supply (Ei128BU & Ei148R), interfaces
  with other mains back-up protected systems, such as Warden Call
- Designed to be sited under a smoke/heat alarm (Ei180R, Ei128R,
  Ei128BU)
- Optional cover available for Ei128R & Ei128BU models to enable
  relay to be sited remotely, rather than under a smoke alarm

140 and 160 Series options

Ei127 - Surface Mounting Kit for use on uneven ceilings or
where complicated wiring is used.
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Ei128BU - As Ei128R with 10yr+ rechargeable cell back-up supply.
Ei128COV - Cover to enable Ei128R/Ei128RBU to be remotely sited.

150 Series options

Ei157 - Surface Mount Kit for easier connection of complicated
wiring and removes the need for a dry lining box.
E157R - As above with 8 way terminal block (for use with
Ei151TLR and Ei156TLR alarms).
E158R - As Ei157 with integral relay.
Carbon Monoxide (CO) Alarms

NO ALARM - NO CHANCE!

Carbon Monoxide or (CO), is a particularly insidious gas. It is a killer. The naked eye can’t see it, it does not smell, it has no taste. The need for a reliable mains powered alarm that will operate even in the event of a mains failure is obvious.

The Ei professional range includes fully featured product usually specified by Local Authorities & Landlords and less sophisticated product where duty of care is not so much of an issue and where the mains supply is more likely to be continuous and /or regular battery maintenance is known to be reliably carried out.

The Ei261EN is the top of the range product. Current sensor technology used by all manufacturers of CO alarms has a limited life cycle; the sensors cannot be relied upon after a period of 5/6 years. The Ei261EN offers a replacement sensor feature, thereby increasing the life cycle of the product to ten years.

CARBON MONOXIDE (CO) PRODUCT SPECIFICATIONS

<table>
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<td>Wall or ceiling mounting</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Automatic self diagnostics</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Quick CO gas test feature</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Pre-alarm warning</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Interconnect feature - only for use with other Ei261EN / DEN CO Alarms</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Comprehensive Indicator lights: Mains on / Fault / Alarm on</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Optional digital display - Ei261DEN</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Quick CO gas test feature</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

We have a range of publications, each one dedicated and focussed for use by specifiers, installation contractors, end users and our distributors. These include advanced technical documents for those who wish to study the full implications of the British Standard and Building Regulations as applied to smoke alarms. We publish Frequently Asked Questions to provide on site solutions. Individual product specifications and individual range brochures are available, also specification documents that may be used by Local Authorities, Housing Associations, Architects and House Builders to ease the preparation work of tender documents for upcoming contracts.

- A Guide to Residential Fire Detection
- Smoke, Heat & RF Frequently Asked Questions
- RadioLINK Brochure
- RadioLINK CD
- CO Brochure
- Technical Specifications
- Installation and Maintenance Manual for Smoke, Heat & CO Alarms
- Tenant User Cards

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